PATENT

DOCKET NO.: HENK-0055 **Application No.:** 10/644,045

Office Action Dated: March 22, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A two-component polyurethane adhesive for wooden materials comprising components A and B wherein

A) is:

a polyol mixture containing at least

- a) 10 to 98 wt. % of at least one oleochemical polyol,
- b) 1 to 7.5 wt. % of at least one $\underline{\mathbf{C}_2\text{-}\mathbf{C}_6}$ alkane diol having a hydroxyl value of 400 to 2000 and
- c) 1 to 7.5 wt. % of at least one tri-, tetra-, or pentafunctional polyol having a hydroxyl value of 200 to 2000, the wt. % of each of a), b) and c) based on the whole of the polyol mixture, and
- d) <u>a resin homogeneously dissolved in the polyol mixture, wherein the resin</u>
 is present in the polyol mixture at a level up to about 60 wt. %, based on the total weight
 of the polyol mixture, and

B) is:

at least one polyisocyanate, wherein the NCO/OH ratio of components A) and B) is within the range of 1.5 to 0.91.5:1 to 0.9:1, and

further comprising from 0 to 85 wt. %, based on the total weight of the adhesive, of at least one auxiliary substance; substance.

wherein the polyol mixture contains up to 60 wt. %, based on the total weight of the polyol mixture, of a resin homogeneously dissolved therein.

- 2. (Original) The adhesive of claim 1 wherein the resin is a natural resin.
- 3. (Original) The adhesive of claim 2 wherein the natural resin is a gum colophony or shellac resin, or derivatives thereof.

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4. (Original) The adhesive of claim 1 wherein the resin is a synthetic resin.

5. (Original) The adhesive of claim 4 wherein the synthetic resin is a hydrocarbon, terpene, alkyd, furan, coumarone-indene, aldehyde or ketone resin, or a glycerol resin ester.

6. (Original) The adhesive of claim 1 wherein the oleochemical polyol comprises at

least one polyol selected from the group consisting of castor oil, dimeric diols and polyols

prepared by ring opening of epoxidised triglycerides of an olefinically unsaturated mixture of

fats using alcohols.

7. (Original) The adhesive of claim 6 wherein the at least one polyol is castor oil.

8. (Cancelled).

9. (Currently amended) The adhesive of elaim-8claim 1 wherein the alkanediols having

2 to 6 C atoms are C₂-C₆ alkanediol is selected from the group consisting of 1,4-butanediol,

dipropylene glycol and diglycol.

10. (Currently amended) The adhesive of claim 1 wherein the tri-, tetra- or

pentafunctional polyol comprises at least one polyol selected from the group consisting of

glycerol, pentaerythritol, propoxylated, ethoxylated or ethoxylated ethylenediamine, and a

tetraol.

11. (Original) The adhesive of claim 1 wherein the polyisocyanate is an aliphatic,

cycloaliphatic or aromatic isocyanate having a functionality of 2 to 4.

12. (Original) The adhesive of claim 1 wherein the auxiliary substance is selected from

the group consisting of fillers, catalysts, flow-control agents, and deaerating agents.

13. (Original) A method of bonding wooden materials comprising applying to the

wooden materials to be bound the adhesive of claim 1.

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14. (Original) The method of claim 13, wherein the wooden materials are loadbearing wooden structural members.

- 15. (Currently amended) The method of claim 13 wherein the <u>wooden material has a</u> water content of the wooden material during bonding is from 2 to 20 wt. % <u>during bonding</u>.
- 16. (New) The adhesive of claim 1, wherein the tri-, tetra- or pentafunctional polyol is a tetrafunctional polyol.
- 17. (New) The adhesive of claim 1, wherein the tri-, tetra- or pentafunctional polyol is a propoxylated or ethoxylated ethylenediamine.
- 18. (New) A two-component polyurethane adhesive for wooden materials comprising components A and B wherein

A) is:

a polyol mixture containing at least

- a) 10 to 98 wt. % of at least one oleochemical polyol,
- b) 1 to 7.5 wt. % of at least one C₂-C₆ alkanediol having a hydroxyl value of 400 to 2000,
- c) 1 to 7.5 wt. % of at least one tetra- or pentafunctional polyol having a hydroxyl value of 200 to 2000, the wt. % of each of a), b) and c) based on the whole of the polyol mixture, and
 - d) a resin homogeneously dissolved in the polyol mixture, and

B) is:

at least one polyisocyanate, wherein the NCO/OH ratio of components A) and B) is within the range of 1.5:1 to 0.9:1, and

further comprising from 0 to 85 wt. %, based on the total weight of the adhesive, of at least one auxiliary substance.

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19. (New) The adhesive of claim 18, wherein the resin is present in the polyol mixture at a level up to about 60 wt. %, based on the total weight of the polyol mixture.